

## A NEW GENUS AND SPECIES OF STOMATOPOD CRUSTACEAN FROM MADAGASCAR

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Among several collections of stomatopods recently received for study from J. FOREST, Muséum national d'Histoire naturelle, Paris, were some small gonodactylids collected on Madagascar by the Mission CHERBONNIER in 1960. The material comprised a female of *Gonodactylus falcatus* (Forskål) from Ambatoloaka, and three specimens from Tanikely : two males of *Gonodactylus lanchesteri* Manning and a female representing a new genus and species which is described below.

I thank Dr. FOREST for allowing me to work with this material, and Dr. T. E. BOWMAN for his comments on the manuscript. The illustrations are by my wife Lilly.

### **Gonodactylolus**, new genus

**DEFINITION.** — Rostral plate with median spine, basal portion of plate acute anterolaterally ; cornea subglobular ; anterior margins of lateral plates of carapace slightly concave, not extending anteriorly beyond base of rostral plate ; ischiomeral articulation of claw not terminal ; propodus of claw with proximal movable spine ; dactylus of claw unarmed ; articulation of propodus and dactylus of claw inflated ; mandibular palp absent ; articulated anterolateral plates of abdomen small ; posterior margin of sixth abdominal somite almost straight ; telson of *Gonodactylus*-type, with three pairs of marginal teeth, intermediates and laterals small, submedians largest, with movable apices ; short submedian denticles present ; proximal segment of uropodal exopod extending beyond articulation with distal segment, movable spines on outer margin straight or slightly curved ; uropodal endopod broad, with single row of marginal setae.

**ETYMOLOGY.** — The name is derived from *Gonodactylus* and the diminutive suffix -olus, alluding to the small size of the type-species and its resemblance to *Gonodactylus*.

**GENDER.** — Masculine.

**TYPE-SPECIES.** — *Gonodactylolus paulus*, new species, by monotypy.

**RELATIONSHIPS.** — *Gonodactylolus* combines some characteristics of *Gonodactylus* Berthold, including shape of eye, rostral plate and telson and the sub-terminal articulation of the two segments of the uropodal exopod, as well as one feature of *Protosquilla* Brooks and allies, the truncated anterior margins of the lateral plates of the carapace. Among the currently recognized genera of the *Gonodactylus* section of the family (MANNING, 1969) the mandibular palp is totally absent only in *Hoplosquilla* Holthuis.

The small specimen upon which the species and the genus are based is a relatively important find, for it may help to clarify some of the complex relationships of the genera in the family Gonodactylidae.

**Gonodactylolus paulus**, new species  
(Fig. 1)

**HOLOTYPE.** — 1 ♀, total length 14.2 mm; Tanikely, Madagascar; “blocs pourris zone pré-alcyonières”; 17 March 1960; Mission CHERBONNIER, Océan Indien no. 43.

**DESCRIPTION.** — Ocular scales low, poorly formed, apparently fused medially, scarcely visible in dorsal view; eyestalk inflated, broader than cornea; cornea subglobular, tapering distally (fig. 1 b).

Rostral plate with slender median spine, prominent angled ventral projection present on spine (fig. 1 c); anterolateral angles of plate acute but not sharp.

Antennal scale short, broad, greatest width proximal to midlength.

Outer margin of dactylus of claw with prominent notch.

Mandibular palp absent; four epipods present.

Exposed thoracic somites and anterior five abdominal somites smooth, unarmed; anterior five abdominal somites with marginal carina and shallow anterolateral pit; anterolateral plates of abdomen very small (fig. 1 d); sixth abdominal somite with six low longitudinal bosses, none armed posteriorly.

Telson (fig. 1 e) broader than long, with three pairs of marginal teeth, submedians well developed, with movable apices; intermediate and lateral teeth smaller than submedians, laterals very small; 11-12 articulated submedian denticles and two fixed intermediate denticles present, lateral denticle not distinct; dorsal surface of telson ornamented with broad, inflated median and anterior submedian bosses, none armed dorsally or posteriorly; anterolateral surface of telson with tubercle; submedian and intermediate teeth with short dorsal carina; marginal carina present.

Basal segment of uropod (fig. 1 e, f) with curved dorsal carina terminating dorsally in angular distal projection; outer margin of proximal segment of exopod with 6 movable spines, apices of distal 4 recurved; distal margin proximal segment of exopod lacking fixed ventral spine; inner margin of proximal segment of exopod smooth, not setose; distal segment of exopod articulating subterminally with proximal segment, margin ornamented with setae in 1 row; endopod ovate, broad, margin completely setose; outer spine of basal prolongation of uropod much larger than inner; mesial margin of basal prolongation with rectangular projection, proximal to articulation of endopod.

**COLOR.** — Almost completely faded, but with traces of a lateral black spot on each abdominal somite.

**MEASUREMENTS.** — Carapace length 2.5 mm; fifth abdominal somite width 2.0 mm; telson length 1.2 mm, width 1.7 mm.

**ETYMOLOGY.** — The name is from the Latin, paulus, small, alluding to the small size of the species.

**DISCUSSION.** — *Gonodactylolus paulus* resembles some of the smaller species now recognized in the genus *Gonodactylus*, particularly those species of the

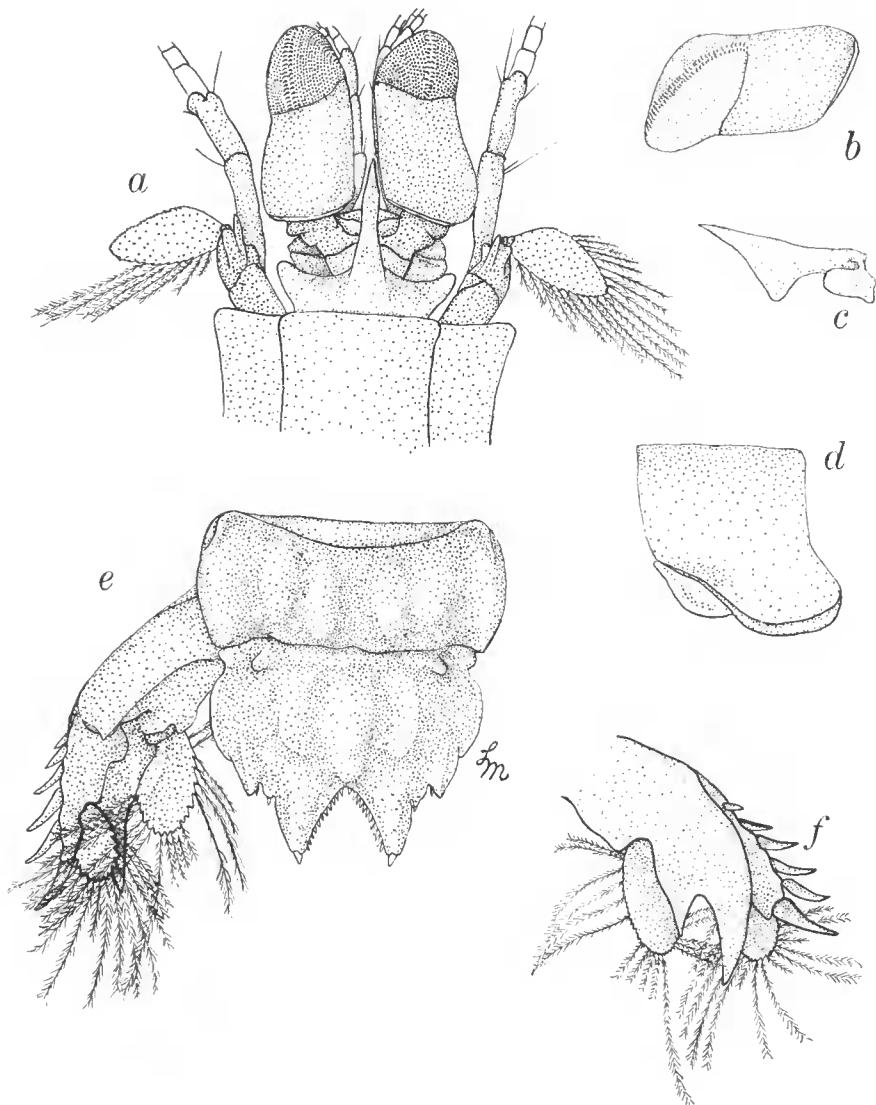


FIG. 1. — *Gonodactylolus paulus*, new genus, new species, female holotype, TL 14.2 mm.  
a, anterior portion of body; b, eye in lateral view; c, rostral plate in lateral view; d, first abdominal somite, left side; e, sixth abdominal somite, telson, and uropod; f, uropod, ventral view. (Many setae damaged or missing).

*demani* section of the genus. The truncated anterior margins of the lateral plates of the carapace distinguish *Gonodactylolus* from all species of *Gonodactylus*. Of the species in the *demani* section of *Gonodactylus*, only *G. choprai* Manning lacks the fixed distal spine on the ventral margin of the proximal segment of the uropodal exopod.

The occurrence of this small species of Madagascar, the stomatopod fauna of which has been reported in some detail recently (MANNING, 1968; 1970), strongly emphasizes our lack of knowledge of the Indo-West Pacific stomatopods.

Several of the features of *G. paulus* are very characteristic. The eye (fig. 4 a, b) is of an unusual shape, with the inflated stalk and a distally tapering cornea set obliquely on the stalk. In those gonodactylids with a similarly shaped eye, the cornea appears to be more rounded distally. The ventral projection of the rostral plate (fig. 4 c) is comparatively much larger than that in species of *Gonodactylus*. In members of the latter genus as well as in other gonodactylids which have the ventral rib on the rostral spine the projection is comparatively much lower, and less distinctive. The broad antennal scale (fig. 4 a) is also unusual for it is typically a slender, elongate appendage in gonodactylids.

**TYPE.** — The holotype has been deposited in the Muséum national d'Histoire naturelle, Paris.

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#### LITERATURE CITED

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